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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,678	06/04/2001	Henry Guy Stevens		9281

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EXAMINER

REDDICK, MARIE L

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/763,678

Applicant(s)

STEVENS, HENRY GUY

Examiner

Judy M. Reddick

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/05/04 & 11/02/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 94-116 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 94-116 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/02/04 has been entered.

Response to Amendment

2. The Amendment filed on 11/02/04 is sufficient to overcome the rejection under 35 USC § 103 (a) over IE 970280, alone, as applied to claims 94-110 & 116 (07/01/04).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 94-101, 103, 109 & 111-116 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) The recited contents governing the PVA, plasticizer, internal lubricant, external lubricant and solid particulate filler per claim 94 constitutes indefinite subject matter as per the entity that the contents are being based on is not readily ascertainable, i.e., polymer feedstock or else.

B) The recited "substantially without melting" per claim 116 constitutes indefinite subject matter as per the metes and bounds of "substantially" engenders indeterminacy in scope. The term "substantially" is not defined by the claims and the specification does not provide a standard for ascertaining the requisite degree and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

There are two separate requirements set forth in the § 112, second paragraph: (A) the claims must set forth the subject matter that applicants regard as their invention; and (B) the claims must particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent grant. See M.P.E.P. § 2171.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 94-116 are rejected under 35 U.S.C. 103(a) as being unpatentable over IE 970280 in combination with Giltsoff (U.S. 5,948,848) and further in combination with WO 98/26911.

IE'280 discloses and exemplifies biodegradable plastic materials and method of manufacturing biodegradable materials via mixing, in a blender or other conventional polymer mixing apparatus at temperatures of at least 55 degrees C, a polyvinyl alcohol polymer or a polyvinyl alcohol/polyvinyl acetate copolymer with a plasticizer or blend of plasticizers and a stabilizer or blend of stabilizers at a temperature in the range of between 106 and 140 degrees C. More specifically, IE'280 teach polymer feedstocks(appears to be prepared substantially without melting, 116), in the form of pellets which appear to be cold-pressed, defined basically as containing an extrudable blend of a polyvinyl alcohol polymer (94 & 104) or a polyvinyl alcohol/polyvinyl acetate copolymer, 2 to 30 % by weight a plasticizer or blend of plasticizers which includes glycerol, ethylene glycol, any vegetable-based oils such as soya or corn oil(sufficient to meet the plasticizer material) and combinations thereof(94, 97 & 104), 2 to 6 % by weight of a stabilizer or blend of stabilizers which includes a stearic acid metal salt and/ or stearamide, sufficient to

Art Unit: 1713

meet the internal and external lubricant(94 and 104). See the Abstract, page 1, lines 2-5, page 2, lines 19-31, pages 3-8, Runs 5-11B, especially Runs 11A & 11B, page 17, lines 25-30, page 18, page 19 and the claims.

The disclosure of IE'280 differs basically from the claimed invention as per the non-express guidelines to add filler to the polymer feedstock. However, Giltsoff teach a process of preparing biodegradable plastic materials which comprises, basically, mixing a stabilizer such as an amide or metal salt with a partially hydrolyzed, water-soluble polyvinyl alcohol copolymer (PVA), adding a plasticizer to the mixture, mixing said materials in the temperature range of between 106 and 140 degrees C and compounding and pelletizing the resultant product to produce a useable, commercial pellet. Giltsoff further teaches that other additives such as coloring compounds and *fillers* may be added in compounding the plastic material.

Giltsoff further specifically teaches that a PVA feedstock, in the form of a powder or granules, is mixed with a stearamide, glycerol and optional other ingredients in a forced action blender (the Abstract, cols. 1-3 and the Runs). Therefore, based on the similarities of the biodegradable materials of IE'280 and Giltsoff, one having ordinary skill in the art would have found it obvious to add a conventionally known compounding additive such as a filler to the PVA feedstock of IE'280 and with a reasonable expectation of increasing polymer bulk, i.e., a reasonable expectation of success. As to the specifically defined polymer feedstock, as claimed, one having ordinary skill in the art would have found it obvious, on its face, to extrapolate the precisely defined polymer feedstock from IE'280 as per such having been within the purview of the general disclosure of IE'280 and with a reasonable expectation of success. Criticality for such, commensurate in scope with the claims, not having been demonstrated on this record.

As to the specific filler materials per claims 98-101 & 108, although generic in terms of content and character, such is a necessary indication that any filler material, including the claimed filler material, would have been operable within the scope of patentees invention and with a reasonable expectation of success. Furthermore, it would have been well within the purview of the skilled artisan to add any conventionally known filler material(inorganic) to the PVA feedstock of IE'280 and with a reasonable expectation of obtaining the cumulative additive effect. Furthermore, as to the organic filler material (99), it would have been obvious to the skilled artisan to add a superabsorbent material, admitted by applicant to be known and

Art Unit: 1713

suitable for use as the filler in embodiments of the invention (page 6, lines 24-31, page 7, lines 1-31 and page 8, line 1), to the PVA feedstock of IE'280 and with a reasonable expectation of success. Moreover, the combination of the specifically recited inorganic and organic filler material, following the antecedently recited rationale, would have been obvious to the skilled artisan and with a reasonable expectation of success. Furthermore, the interchangeability of one well-known metal stearate for another is a matter of ordinary choice to the skilled artisan and with a reasonable expectation of success, absent some evidence of unusual or unexpected evidence (108).

When the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim it is appropriate for the examiner to make a rejection under both the applicable section of 35 USC 102 and 35 USC 103 such that the burden is placed upon applicant to provide clear and convincing factual evidence that the respective products do in fact differ in kind - In re Brown, 59 CCPA 1063, 173 USPQ 685 (1972); In re Fessman, 180 USPQ 324 (CCPA 1974) - and to come forward with evidence establishing unobvious differences between the claimed product and the prior art product (In re Marosi 218 USPQ 289).

As to the specific method of making a PVA-containing feedstock (111-115), it is conventionally well known to mix a polymer such as PVA and other compounding ingredients such as stabilizers, fillers, lubricants, coloring agents, plasticizers, etc. and cold press the mixture to form a tablet or pellet so as to engender uniformity and wherein the mixture contains moisture serving to bind the tablets or pellets per WO '911 (the Abstract, pages 1-5, 9, 11 and the Claims). Therefore, it would have been obvious to the skilled artisan to apply the process of WO'911 to the PVA blend of IE'280 and with a reasonable expectation of success. Criticality for such, commensurate in scope with the claims, not having been demonstrated on this record.

As to any remaining dependent claim limitations, if not taught or suggested by IE'280, these limitations would have been obvious to the skilled artisan and with a reasonable expectation of success, i.e., any additional or particular claim parameters which may not be specifically set out in the references are considered to be inherent in the reference products (moisture content) or not to involve anything unobvious absent a showing to the contrary.

Response to Arguments

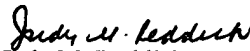
8. Applicant's arguments with respect to claims 94-116 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (571) 272-1110. The examiner can normally be reached on 6:00 a.m. - 2:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Judy M. Reddick  
Primary Examiner  
Art Unit 1713

JMR   
02.22.05